HUSKY FS/GS

Systems Developer’s Guide Supplement

FS/GS Systems Developer's Guide Supplement

Introduction

The following is a summary of the sections within the **HUSKY FS/2 Systems Developer's Guide** that do not relate to the **FS/GS** because of its specific functionality. Please keep this supplement safe as the information contained is important to application development.

The document is arranged by Chapter, Title and Section as found in the **HUSKY FS/2 Systems Developer's Guide P-2240-0000 Issue 2B**. References are given subsection, function number or context as relevant to the deviation.

General

The **FS/2 Systems Developer's Guide** mentions FS/2 features throughout that are not available with **FS/GS**. These features are as follows:

- Only one serial connector assigned as COM2 available. NOTE: COM2 is situated in the Serial Port 1 Connector position of the FS/2.
- Specific Serial Port Configuration is 9-way D-type.
- Standard COM2 serial port is an Emulated 8250 UART.
- Charging and Communications Rack Interface not available.
- Standard memory size options are 1Mb & 2Mb.
- High visibility orange paint finish as standard.

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Communications

The serial interface has differences beyond the number of ports and connection options available:

- **FS/GS** will not provide power to attached serial devices via VCCout.
- Ring Indicator modem status line is not available.
- **FS/GS** charges through the Serial Port 1 connector via the CHRGIN line pin 9 on the D-type connector (see below):

9 Way D-type Pin No.	Signal Name
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	CHGIN

Any application procedure calling these non-resident features, though not adversely affected, may return error status messages depending on the application code.

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Chapter 1 Welcome to the Husky FS/2

Section 1.3: Options

The following **FS/2** options only are available for **FS/GS**

- Neckstrap
- Carry case
- Plug-in AC adaptor (charger) - through serial port connection
- 1Mb & 2Mb RAM options as standard

Chapter 5 Setting Up

Section 5.1: About the FS/2

The **FS/GS** variant has a subset of those available for the **FS/2** as follows

Feature	**FS/GS** availability
1	PORT 1 CONNECTOR: 9-way D-type only - ASSIGNED COM2
1a	25-way D-type option not available
2	PORT 2 CONNECTOR: not available (see Feature 1)
3	RACK CONTACTS: not available
14	PORT 3 CONNECTOR: not available

Chapter 7

Section 7.4.4: Special keys

Shows the Prtsc key which, although implemented, does not affect **FS/GS**. Bullet point 4, Hot status key display, refers to the **FS/2** Flash EPROM option not available on **FS/GS**.

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Chapter 8

Section 8.2.2: Using Rechargeable Batteries
Section 82.2.2: Recharging Batteries

References of the **FS/2 Communications and Charging Rack** are not applicable to **FS/GS**.

Section 8.2.4: Using the AC Adaptor

Under 'To use the FS/2 AC adaptor', Step 3 reference to the 5-pin connector is not relevant. The procedure is valid if followed with the **FS/GS AC adaptor.**

Chapter 10

Section 10.7: Communication Port 1 / 2 Setup

Although the UTIL option to configure COM1 is still listed, it will have no output on **FS/GS** as the COM1 hardware is not implemented.

Chapter 13 Introduction to Communications

Section 13.1: Introduction

Communications via Charging with the **Charging and Communications Rack** and internal modem options are not available on **FS/GS**. All other features remain as documented for COM2.

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Chapter 14

As with chapter 13 only COM2 features are implemented.

Section 14.4: Using standard facilities

Piping file output to COM1 as described will have no visible effect, but when output is redirected to COM2 it will obtain the listed result.

Using the print screen facility will show no results as LPT1 is automatically redirected to COM1. In order to print, the MODE.COM DOS utility must be used to redirect LPT1 to COM2:

MODE LPT1:=COM2:

This line can be added to the AUTOEXEC.BAT file to ensure that LPT1 output is always directed to a physical hardware port.

Chapter 15

Section 15.2: Power

FS/2 Communications and Charging Racks cannot be used with **FS/GS**.

Section 15.3.2: Flash EPROM

The Flash EPROM option referred is not available on **FS/GS**.

Section 15.5: Communications and Charging Rack

No **Communications and Charging Rack** option is available on **FS/GS**.

Section 15.6: Communications

Communications are only expandable by additional protocols.

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Section 15.8: Probes and Other Reading Devices

Peripheral serial devices harnessing an independent power supply can operate with **FS/GS.**

Chapters 18 to 28

All the features described for the **FS/2** are installed and will not directly cause faults if used by existing **Hunter16** or **FS/2** software. However, due to the specific hardware design they may have no visible effect and could consequently affect the software by omission. For example, if an application expects a resume via Ring Indicator activation, this will not occur since **FS/GS** has no Ring Indicator connection.

All interrupt functions, requiring consideration, are described in the following table:

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Interrupt	Function	**Applicable to FS/GS**	Description
05H	-	Yes	True if LPT1 output is redirected to COM2.
11H	-	Yes	Will report **FS/2** System equipment not **FS/GS**.
14H	-	COM2 only	DX must always be 01H for the functions to have a visible effect since only COM2 is available.
14H	26H	No	Ring Indicator is not installed on **FS/GS**.
14H	2EH	No	Rack option on **FS/GS** is not available
14H	2FH	No	Rack option on **FS/GS** is not available
14H	31H	No	Internal Modem option on **FS/GS** is not available
14H	32H	No	COM1 on **FS/GS** is not available.
14H	33H	No	COM1 on **FS/GS** is not available.
14H	34H	No	COM1 on **FS/GS** is not available.
15H	6DH	Yes	Events 1, 3 and 6 cannot be generated by **FS/GS**.
15H	6EH	Yes	Events 1, 3 and 6 cannot be generated by **FS/GS**.
15H	74H	No	Backlight option available on **FS/GS** is not available.
15H	79H	COM2 only	True if LPT1 output is redirected to COM2.
15H	81H	No	4.6V VCCout is available on **FS/GS** is not available.
15H	90H	No	4.6V VCCout is available on **FS/GS** is not available.
17H	-	Yes	True if LPT1 is redirected to COM2 (see int15H, function 79H).

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Section 31.2.3: I/O addresses

COM1 I/O ports at addresses 3F8H to 3FEH, which although implemented, will have no effect if used on **FS/GS**.

Section 31.4.4: Serial Ports

Only references to COM2 at I/O addresses 2F8H to 2FFH are relevant.

Section 31.4.4.1: Main Limitations

Delta RI will not be generated for COM2 as described.

Section 31.4.4.2: Buffering

Description of a 2kb input buffer on COM1 relevant for the sake of software compatibility, but has no practical effect on **FS/GS**.

Chapter 32

Section 32.1.1 Power-up

Receiving an RI signal and placing the unit on the FS/CCR will not power the **FS/GS**.

Section 32.1.1.3: RI

RI is not relevant to **FS/GS** as Ring Indicator is not installed.

Section 32.1.2.6: Power loss

Mentions that a too high load can cause the unit to power down. This should not happen on **FS/GS** as it will not supply power via VCCout.

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Section 32.1.4.3: Switchable devices

Only point 2 (the RS232 interface) is installed on **FS/GS** as standard.

Appendix A Specification

Section A4: Communications

Port 1, 3 and the FS/CCR contacts are not installed on **FS/GS**.

Section A.6: Memory

The Flash EPROM option is not available on **FS/GS**.

Appendix F Interfacing

Section F.1: 12-way Connectors (Port 1 and Port 2)

The 12-way interface is not available as a standard option.

Section F.2: 25-way D type (Port 1 and Port 2)

25-way interface is not available on **FS/GS**.

Section F.3: 9-way D type (Port 1 and Port 2)

9-way is only available as COM2.
Pin 9 is CHRGIN - the charger input pin.

Section F.4: 5-way FISCHER

5-way FISCHER is not available on **FS/GS**.

Section F.5: Modem option (COM1)

The modem option is not available on **FS/GS**.

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Section F.4: Communications and charging contacts (COM1)

Communications and charging contacts are not available on **FS/GS**

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